U.S. *FOREST PRODUCTS LABORATORY*
LIST OF PUBLICATIONS
ON
SANDWICH CONSTRUCTION

DECEMBER 1966

U. S. Department of Agriculture
Forest Service
Madison, Wisconsin 53705
In cooperation with the University of Wisconsin

The FOREST SERVICE of the U. S. DEPARTMENT OF AGRICULTURE is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives — as directed by Congress — to provide increasingly greater service to a growing Nation.

Symbols and abbreviations used. --For the sake of brevity in the column "Publication and Date," the following abbreviations have been used.

ASTM	-	American Society for Testing and Materials (1916 Race St., Philadelphia, Pa. 19103).
CFSTI	-	Clearinghouse for Federal Scientific and Technical Information, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Va. 22151).
FPL	-	Forest Products Laboratory.
GPO	-	Government Printing Office.
NACA	-	Now NASA, NASA Scientific & Technical Information Facility, (P. O. Box 5700, Bethesda, Md. 20014).
Rev.	-	Revised.
R&R	-	Reviewed and reaffirmed.
USDA	-	U. S. Department of Agriculture.
USFS	-	U. S. Forest Service.
WADC) WADD) ASD)	-	Publications by Air Force Materials Laboratory, Research & Technology Division, Air Force Systems Command, available from Clearinghouse for Federal Scientific and Technical Information.

LIST OF PUBLICATIONS ON SANDWICH CONSTRUCTION

TABLE OF CONTENTS

FOREWORD

Scope. --This is a listing of literature available on results of research conducted by the Forest Products Laboratory on sandwich construction.

Sources of publications

(1) U.S. Forest Products Laboratory

> Publications without an asterisk (*) are available for distribution from this Laboratory. Single copies may be obtained free upon request to the Director, Forest Products Laboratory, Madison, Wis. 53705.

The Laboratory reserves the right to furnish only those publications which in its judgment will give the information requested. Blanket requests or requests for a large number of copies of any individual article will not be filled except in unusual cases.

Publications available elsewhere are marked with asterisks.

(2) Publishers or CFSTI.

(3) Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

(4) Libraries may be the only available source for publications out of print.

SANDWICH CONSTRUCTION

Title	Author	Publication and date
ADHESIVES		
Climbing peel test for strength of adhesive bonds.	Werren, Fred, & Eickner, H. W.	Modern Plastics, Dec. 1956.
*Comparisons of test methods for evaluating adhesives for bonding metal facings to metal honeycomb core.	Eickner, H. W., & Werren, Fred	WADC TR 54-138. 1954. CFSTI (PB 135 746).
*Evaluation of serveral adhesives and processes for bonding sandwich construction of aluminum facings on paper honeycomb core.	Eickner, H. W.	NACA Tech. Note 2106. 1950. CFSTI (PB 110 285).
Moisture-excluding effectiveness of edge seals for aircraft sandwich panels.	Heebink, B. G.	FPL Rep. 1822. 1950. R&R 1962.
*Durability of glued joints between aluminum and end-grain balsa.	Eickner, H. W.	FPL Rep. 1566. 1947. Out of print. CFSTI (PB 98 826).
Tension strength at elevated temperatures of glued joints between aluminum and end-grain balsa.	Eickner, H. W.	FPL Rep. 1548. 1946.
CORES		
Effect of core thickness and moisture content on mechanical properties of two resin-treated paper honeycomb cores.	Jenkinson, P. M.	USFS Res. Pap. FPL 35. 1965.

Title	Author	Publication and date	
	CORES (continued)		
Calculation of vibration damping in sandwich construction from damping properties of the cores and facings.	James, W. L.	FPL Rep. 1888. 1962.	
Compressive and shear properties of two configurations of sandwich cores of corrugated foil.	Stevens, G. H.	FPL Rep. 1889. 1962.	
Effect of core thickness on shear properties of aluminum honeycomb core.	Jenkinson, P. M., & Kuenzi, E. W.	FPL Rep. 1886. 1962.	
Mechanical properties of several honeycomb cores.	Stevens, G. H., & Kuenzi, E. W.	FPL Rep. 1887. 1962.	
Durability of resin-treated paper honeycomb core.	Boller, K. H.	FPL Rep. 2158. 1959. R&R 1965.	
*Mechanical properties of some heat-resistant metal honeycomb cores.	Kuenzi, E. W., & Jahnke, W. E.	FPL Rep. 1872. 1959. Out of print.	Out
An apparatus for measuring internal friction and fatigue strength of core materials used in sandwich construction.	James, W. L., & Norris, C. B.	FPL Rep. 1866. 1958.	
*Mechanical properties of 422-J Bacfoam core for sandwich construction.	Jenkinson, P. M., & Kuenzi, E. W.	WADC TR 57-132. 1957. CFSTI (PB 131 077)	
*Mechanical properties of glass-fabric honeycomb cores.	Kuenzi, E. W.	FPL Rep. 1861. 1957. Out of print.	

Title	Author	Publication and date
	CORES (continued)	
*Effect of moisture sorption on weight and dimensional stability of alkyd-isocyanate foam core.	Setterholm, V. C., & Kuenzi, E. W.	WADC TR 56-86. 1956. CFSTI (PB 121 800).
*Mechanical properties of aluminum multiwave cores	Kuenzi, E. W., & Setterholm, V. C.	FPL Rep. 1855. 1956. Out of print.
*Paper-honeycomb cores for structural sandwich panels.	Seidl, R. J.	FPL Rep. 1918. 1956. Out of print.
*Performance of glass-fabric sandwich and honeycomb cores at elevated temperatures.	Setterholm, V. C., & Kuenzi, E. W.	WADC TR 56-119. 1956. CFSTI (PB 121 800).
*Performance of sandwich with cores of foamed silicone and modified polyester resins at elevated temperatures and at high humidity.	Setterholm, V. C., & Kuenzi, E. W.	WADC TR 56-230. 1956. CFSTI (PB 121 707)
*Mechanical properties of aluminum honeycomb cores.	Kuenzi, E. W.	FPL Rep. 1849. 1955. Out of print.
*Effect of unbonded joints in an aluminum honeycomb core material for sandwich constructions.	Norris, C. B.	FPL Rep. 1835. 1952. Out of print.
Mechanical properties of some low-density materials and sandwich cores.	Voss, A. W.	FPL Rep. 1826. 1952.

Title	Author	Publication and date
	CORES (continued)	
Shear-fatigue properties of various sandwich constructions.	Werren, Fred	FPL Rep. 1837. 1952. R&R 1958.
Paper honeycomb cores for structural building panels: Effect of resins, adhesives, fungicides, and weight of paper on strength and resistance to decay.	Seidl, R. J., Kuenzi, E. W., & Fahey, D. J.	FPL Rep. 1796. 1951. R&R 1961.
*Properties of honeycomb core as affected by fiber type, fiber orientation, resin type, and amount.	Seidl, R. J., Fahey, D. J., & Voss, A. W.	NACA Tech. Note 2564. 1951. CFSTI (PB 105 692).
*An analysis of the shear strength of honeycomb cores for sandwich constructions.	Werren, Fred, & Norris, C. B.	NACA Tech. Note 2208. 1950. CFSTI (PB 101 883).
*Effect of cell shape on compressive strength of hexagonal honeycomb structures.	Ringelstetter, L.A., Voss, A. W., & Norris, C. B.	NACA Tech. Note 2243. 1950. CFSTI (PB 102 350).
*Strength properties of rayon-mat honeycomb core materials.	Kommers, W. J.	NACA Tech. Note 2084. 1950. CFSTI (PB 100 859).
*Strength properties of plastic honeycomb core materials.	Kommers, W. J.	FPL Rep. 1805. 1949. Out of print.
*Investigation of mechanical properties of honeycomb structures made of impregnated paper.	Norris, C. B., & Mackin, G. E.	NACA Tech. Note 1529. 1948.

Title	Author	Publication and date
	CORES (continued)	
*An analysis of the compressive strength of honeycomb cores for sandwich constructions.	Norris, C. B.	NACA Tech. Note 1251. 1947.
Resin-treated pulpboard core material for sandwich constructions.	Mackin, G. E., Kingsbury, R. M., Baird, P. K., & Erickson, E. C. O.	FPL Rep. 1623. 1947.
*Fatigue of sandwich constructions for aircraft. (Cellular cellulose acetate core material in shear.)	Lewis, W. C.	FPL Rep. 1559. 1946. Out of print.
*Supplement: Aluminum face and paper honeycomb core sandwich material tested in shear.	Werren, Fred	FPL Rep. 1559-A. 1947. Out of print. CFSTI (PB 98 847).
Supplement: Aluminum face and end-grain balsa core sandwich material tested in shear.	Werren, Fred	FPL Rep. 1559-B. 1948. R&R 1962.
Supplement: Fiberglas-honeycomb core material with fiberglas-laminate or aluminum facings tested in shear.	Werren, Fred	FPL Rep. 1559-C. 1948. R&R 1962.
Supplement: Fiberglas-laminate face and end-grain balsa core sandwich material tested in shear.	Werren, Fred	FPL Rep. 1559-D. 1948. R&R 1962.

Title	Author	Publication and date
	CORES (continued)	
Fatigue of sandwich constructions for aircraft. (Cellular cellulose acetate core material in shear.)		
Supplement: Cellular-hard-rubber core material with aluminum or fiberglas-laminate facings, tested in shear.	Werren, Fred	FPL Rep. 1559-E. 1948. R&R 1962.
*Supplement: Cellular cellulose acetate core material with aluminum or fiberglas-laminate facings, tested in shear.	Werren, Fred	FPL Rep. 1559-F. 1948. Out of print.
*Supplement: Fiberglas-laminate facing and paper honeycomb core sandwich material tested in shear.	Werren, Fred	FPL Rep. 1559-G. 1949. Out of print.
Supplement: Aluminum facing and aluminum honeycomb core sandwich material tested in shear.	Werren, Fred	FPL Rep. 1559-H. 1949. R&R 1962.
*Supplement: Glass-fabric-laminate facing and waffle-type core sandwich material tested in shear.	Werren, Fred	FPL Rep. 1559-I. 1950. Out of print.

Title	Author	Publication and date
	CORES (continued)	
Fatigue of sandwich constructions for aircraft. (Cellular cellulose acetate core material in shear.)		
*Supplement: Glass-fabric-laminate facing and alkyd isocyanate foamed-in-place core sandwich material tested in shear.	Werren, Fred	FPL Rep. 1559-J. 1952. Out of print.
Supplement: Aluminum facing and expanded-aluminum-honeycomb core sandwich material tested in shear.	Werren, Fred	FPL Rep. 1559-K. 1952. R&R 1958.
*Weight and dimensional stability of three low-density core materials.	Mraz, E.A., & Hutchins, W.F.	FPL Rep. 1544. 1946. Out of print.
*Results of some tests on low-density materials.	Erickson, E.C.O.	FPL Rep. 1509. 1944. Out of print.
	CYLINDERS AND CURVED PANELS	
Buckling coefficients for sandwich cylinders of finite length under uniform external lateral pressure.	Kuenzi, E.W., Bohannan, B., & Stevens, G.H.	USFS Res. Note FPL-0104. 1965.
Classical buckling of cylinders of sandwich construction in axial compression--orthotropic cores.	Zahn, J.J., & Kuenzi, E.W.	USFS Res. Note FPL-018. 1963.

Title	Author	Publication and date
CYLINDERS AND CURVED PANELS (continued)		
*Buckling of layered orthotropic and sandwich cylindrical shells in axial compression.	Kuenzi, E. W.	NASA Tech. Note D-1510. Collected papers on instability of shell structures. 1962.
Compressive buckling curves for sandwich cylinders having orthotropic facings.	Norris, C. B., & Zahn, J. J.	FPL Rep. 1876. 1960.
*Elastic stability of cylindrical sandwich shells under axial and lateral load.	Haft, E. E.	FPL Rep. 1852. 1955. Out of print.
*Analysis of long cylinders of sandwich construction under uniform external lateral pressure.	Raville, M. E.	FPL Rep. 1844. 1954. Out of print.
Supplement: Facings of moderate and unequal thicknesses.	Raville, M. E.	FPL Rep. 1844-A. 1955. R&R 1960.
Supplement: Buckling of sandwich cylinders of finite length under uniform external lateral pressure.	Raville, M. E.	FPL Rep. 1844-B. 1955. R&R 1960.
Buckling of sandwich cylinders in torsion.	March, H. W., & Kuenzi, E. W.	FPL Rep. 1840. 1953. R&R 1958.
Buckling of cylinders of sandwich construction in axial compression.	March, H. W., & Kuenzi, E. W.	FPL Rep. 1830. 1952. Rev. 1957.

Title	Author	Publication and date
CYLINDERS AND CURVED PANELS (continued)		
Stability of a few curved panels subjected to shear.	Kuenzi, E. W.	FPL Rep. 1571. 1947. R&R 1962.
*Design criteria for long curved panels of sandwich construction in axial compression.	Kuenzi, E.W.	FPL Rep. 1558. 1946. Out of print.
FLAT PANELS AND STRIPS		
Buckling coefficients for flat, rectangular sandwich panels with corrugated cores under edgewise compression.	Jenkinson, P.M., & Kuenzi, E.W.	USFS Res. Pap. FPL 25. 1965.
Minimum weight structural sandwich.	Kuenzi, E. W.	USFS Res. Note FPL-086. 1965.
Buckling coefficients for simply supported and clamped flat, rectangular sandwich panels under edgewise compression.	Kuenzi, E. W., Norris, C. B., & Jenkinson, P. M.	USFS Res. Note FPL-070. 1964.
Edgewise compressive buckling of flat sandwich panels: Loaded ends simply supported by beams.	Zahn, J. J., & Cheng, Shun	USFS Res. Note FPL-019. 1964.
Short-column compressive strength of sandwich constructions as affected by size of cells of honeycomb core materials.	Norris, C. B.	USFS Res. Note FPL-026. 1964.

Title	Author	Publication and date
	FLAT PANELS AND STRIPS (continued)	
Compressive buckling curves for flat sandwich panels with dissimilar facings.	Norris, C. B.	FPL Rep. 1875. 1960.
Torsion of sandwich panels of trapezoidal, triangular, and rectangular cross sections.	Cheng, Shun	FPL Rep. 1874. 1960.
Supplement: Derivation of differential equation and its application to rectangular panels with loads applied at corners.	Cheng, Shun	FPL Rep. 1874-A. 1960.
Buckling of simply supported rectangular sandwich panels subjected to edgewise bending.	Jahnke, W. E., & Kuenzi, E. W.	FPL Rep. 1868. 1959.
Simply supported sandwich beam--a nonlinear theory.	Zahn, J. J.	FPL Rep. 2157. 1959.
Torsion of rectangular sandwich plate.	Cheng, Shun	FPL Rep. 1871. 1959.
Wrinkling of the facings of aluminum and stainless steel sandwich subjected to edgewise compression.	Jenkinson, P. M., & Kuenzi, E. W.	FPL Rep. 2171. 1959.

Title	Author	Publication and date
FLAT PANELS AND STRIPS (continued)		
Compressive buckling curves for sandwich panels with isotropic facings and isotropic or orthotropic cores.	Norris, C. B.	FPL Rep. 1854. Rev. 1958.
Compressive buckling curves for simply supported sandwich panels with glass-fabric-laminate facings and honeycomb cores.	Norris, C. B.	FPL Rep. 1867. 1958.
*Elastic buckling of a simply supported rectangular sandwich panel subjected to combined edgewise bending and compression.	Kimel, W. R.	FPL Rep. 1857. 1956. Out of print.
Supplement: Results for panels with facings of either equal or unequal thickness and with orthotropic cores.	Kimel, W. R.	FPL Rep. 1857-A. 1956. R&R 1962.
*Elastic buckling of a simply supported rectangular sandwich panel subjected to combined edgewise bending, compression, and shear.	Kimel, W. R.	FPL Rep. 1859. 1956. Out of print.
Deflection and stresses in a uniformly loaded, simply supported, rectangular sandwich plate.	Raville, M. E.	FPL Rep. 1847. 1955. R&R 1962.

Title	Author	Publication and date
	FLAT PANELS AND STRIPS (continued)	
Deflection and stresses in a uniformly loaded, simply supported, rectangular sandwich plate.	Raville, M. E.	FPL Rep. 1847. 1955. R&R 1962.
Supplement: Experimental verification of theory.	Lewis, W. C.	FPL Rep. 1847-A. 1956. R&R 1962.
*Stresses induced in a sandwich panel by load applied at an insert.	Youngquist, W. G., & Kuenzi, E. W.	FPL Rep. 1845. 1955. Out of print.
Supplement:	Youngquist, W. G., & Kuenzi, E. W.	FPL Rep. 1845-A. 1955. R&R 1960.
Supplement No. 2:	Youngquist, W. G., & Kuenzi, E. W.	FPL Rep. 1845-B. 1956. R&R 1962.
*Transfer of longitudinal load from one facing of a sandwich panel to the other by means of shear in the core.	Norris, C. B., & Boller, K. H.	FPL Rep. 1846. 1955. Out of print.
*Fabrication of lightweight sandwich panels of the aircraft type.	Heebink, B. G., Mohaupt, A. A., & Kunzweiler, J. J.	FPL Rep. 1574. 1954. Out of print.
Deflection and distribution of stresses in the facings of a centrally loaded transparent sandwich beam.		
*Supplement 1:	Ericksen, W. S.	WADC TR 52-185. Suppl. 1. 1953. CFSTI (PB 130 373).

Title	Author	Publication and date
FLAT PANELS AND STRIPS (continued)		
*Effect of certain fabricating variables on plastic laminates and plastic honeycomb sandwich construction.	Heebink, B. G., Werren, Fred, & Mohaupt, A. A.	FPL Rep. 1843. 1953. Out of print.
*Stresses within a rectangular, flat sandwich panel subjected to a uniformly distributed normal load and edgewise, direct, and shear loads.	Norris, C. B., & Kommers, W. J.	FPL Rep. 1838. 1953. Out of print.
*Behavior of a rectangular sandwich panel under a uniform lateral load and compressive edge loads.	March, H. W.	FPL Rep. 1834. 1952. Out of print.
Critical loads of a rectangular, flat sandwich panel subjected to two direct loads combined with a shear load.	Norris, C. B., & Kommers, W. J.	FPL Rep. 1833. 1952. R&R 1958.
*The bending of a circular sandwich plate under normal load.	Ericksen, W. S.	FPL Rep. 1828. 1951. Rev. 1953. Out of print.
*Edgewise compressive strength of panels and flatwise flexural strength of strips of sandwich constructions.	Kuenzi, E. W.	FPL Rep. 1827. 1951. Out of print.
*Flexure of structural sandwich construction.	Kuenzi, E. W.	FPL Rep. 1829. 1951. Out of print.
Effect of shear strength on maximum loads of sandwich columns.	Boller, K. H., & Norris, C. B.	FPL Rep. 1815. 1950. R&R 1960.

Title	Author	Publication and date
	FLAT PANELS AND STRIPS (continued)	
Effect of defects on strength of aircraft-type sandwich panels.	Heebink, B. G., & Mohaupt, A. A.	FPL Rep. 1809. 1949. R&R 1962.
Supplement:	Mohaupt, A. A., & Heebink, B. G.	FPL Rep. 1809-A. 1951. R&R 1958.
Elastic stability of the facings of flat sandwich panels when subjected to combined edgewise stresses.	Boller, K. H., & Norris, C. B.	FPL Rep. 1802. 1949. R&R 1960.
Wrinkling of the facings of sandwich constructions subjected to edgewise compression.	Norris, C. B., Ericksen, W. S., March, H. W., Smith, C. B., & Boller, K. H.	FPL Rep. 1810. 1949. R&R 1961.
*Supplement: Sandwich constructions having honeycomb cores.	Norris, C. B., Boller, K. H., & Voss, A. W.	FPL Rep. 1810-A. 1953. Out of print.
*Effects of shear deformation in the core of a flat rectangular sandwich panel. 1. Buckling under compressive end load. 2. Deflection under uniform transverse load.	March, H. W.	FPL Rep. 1583. 1948. Out of print. CFSTI (PB 98 767).
Supplement: Stiffness of flat panels of sandwich construction subjected to uniformly distributed loads normal to their surfaces--simply supported edges.	Kommers, W. J., & Norris, C. B.	FPL Rep. 1583-A. 1948. R&R 1962.

Title	Author	Publication and date
	FLAT PANELS AND STRIPS (continued)	
*Effects of shear deformation in the core of a flat rectangular sandwich panel. 1. Buckling under compressive end load. 2. Deflection under uniform transverse load.		
*Supplement: Effects of shear deformation in the core of a flat rectangular sandwich panel. Compressive buckling of sandwich panels having dissimilar facings of unequal thickness.	Ericksen, W. S., March, H. W., & Zahn, J. J.	FPL Rep. 1583-B. Rev. 1958. Out of print.
*Supplement: Effects of shear deformation in the core of a flat rectangular sandwich panel. Deflection under uniform load of sandwich panels having facings of unequal thickness.	Ericksen, W. S.	FPL Rep. 1583-C. 1950. Out of print.
*Supplement: Deflection under uniform load of sandwich panels having facings of moderate thickness.	Ericksen, W. S.	FPL Rep. 1583-D. 1951. Out of print.
*Repair of aircraft sandwich constructions.	Panek, Edward, & Heebink, B. G.	FPL Rep. 1584. 1948. Out of print.

Title	Author	Publication and date
	FLAT PANELS AND STRIPS (continued)	
Repair of aircraft sandwich constructions.		
Supplement:	Mohaupt, A. A., & Heebink, B. G.	FPL Rep. 1584-A. 1950. R&R 1962.
Supplement:	Heebink, B. G.	FPL Rep. 1584-B. 1953. R&R 1962.
*Preliminary report on the strength of flat sandwich plates in edgewise compression.	Boller, K. H.	FPL Rep. 1561. 1947. Out of print.
Shear stability of flat panels of sandwich construction.	Kuenzi, E. W., Ericksen, W. S., & Zahn, J. J.	FPL Rep. 1560. 1947. Rev. 1962.
*Impact resistance of three core materials and six sandwich constructions as measured by falling-ball tests.	Boller, K. H.	FPL Rep. 1543. 1946. Out of print.
*Buckling loads of flat sandwich panels in compression--various types of edge conditions.	March, H. W., & Smith, C. B.	FPL Rep. 1525. 1945. Out of print.
*Supplement: The buckling of flat sandwich panels with edges simply supported (end-grain balsa cores and facings of aluminum, and glass cloth laminate).	Boller, K. H.	FPL Rep. 1525-A. 1947. Out of print.

Title	Author	Publication and date
	FLAT PANELS AND STRIPS (continued)	
Buckling loads of flat sandwich panels in compression--various types of edge conditions.		
*Supplement: Buckling of flat sandwich panels with loaded edges simply supported and the remaining edges clamped (cores of end-grain balsa or cellular cellulose acetate and faces of aluminum or glass cloth laminate).	Boller, K. H.	FPL Rep. 1525-B. 1947. Out of print.
*Supplement: Buckling of flat sandwich panels with loaded edges clamped and the remaining edges simply supported (cores of end-grain balsa or cellular cellulose acetate and facings of aluminum or glass cloth laminate).	Boller, K. H.	FPL Rep. 1525-C. 1947. Out of print.
*Supplement: Buckling of flat sandwich panels with all edges clamped (cores of end-grain balsa or cellular cellulose acetate and faces of aluminum or glass cloth laminate).	Boller, K. H.	FPL Rep. 1525-D. 1947. Out of print.

Title	Author	Publication and date
FLAT PANELS AND STRIPS (continued)		
Buckling loads of flat sandwich panels in compression--various types of edge conditions.		
*Supplement: The buckling of flat sandwich panels with either all edges simply supported or all edges clamped (cores of paper honeycomb and facings of glass cloth laminate).	Boller, K. H.	FPL Rep. 1525-E. 1948. Out of print. CFSTI (PB 98 837).
*Buckling loads of panels having light cores and dense faces.	March, H. W.	FPL Rep. 1504. 1944. Out of print.
Flexural rigidity of a rectangular strip of sandwich construction.	Forest Products Laboratory	FPL Rep. 1505. 1944. R&R 1962.
Supplement: Supplementary mathematical analysis and comparison with the results of tests.	Norris, C. B., Ericksen, W. S., & Kommers, W. J.	FPL Rep. 1505-A. 1952. R&R 1962.
TESTS AND ENVIRONMENT		
Edgewise compressive properties of titanium and nickel-base sandwich constructions at elevated temperatures.	Jenkinson, P. M.	USFS Res. Pap. FPL 68. 1966.
Performance of sandwich panels in FPL experimental unit.	Anderson, L. O., & Wood, L. W.	USFS Res. Pap. FPL 12. 1964.

Title	Author	Publication and date
TESTS AND ENVIRONMENT (continued)		
*Fatigue properties of some aluminum and stainless steel sandwich constructions.	Jenkinson, P. M., & Kuenzi, E. W.	ASD TDR 62-1003. 1962. CFSTI (AD 403 266).
*Long-term case study of sandwich panel construction in FPL experimental unit.	Markwardt, L. J., & Wood, L. W.	FPL Rep. 2165. 1959. Out of print. Superseded by USFS Res. Pap. FPL 12.
*Sandwich panels for building construction.	Wood, L. W.	FPL Rep. 2121. 1958. Out of print. Superseded by USFS Res. Pap. FPL 12.
*Methods of testing sandwich constructions at elevated temperatures.	Kuenzi, E. W.	FPL Rep. 2063. 1956. Out of print.
*Performance of stainless steel sandwich construction at high temperatures.	Setterholm, V. C., & Kuenzi, E. W.	WADC TR 55-417. 1956. CFSTI (PB 121 681).
*Tension test methods for wood, wood-base materials, and sandwich constructions.	Markwardt, L. J., & Youngquist, W. G.	FPL Rep. 2055. 1956. Out of print.
*Evaluation of a vacuum-induced concentrated-load sandwich tester.	Heebink, B. G., Kuenzi, E. W., & Ericksen, W. S.	FPL Rep. 1832-B. 1953. Out of print.
*Preliminary evaluation of a vacuum-induced concentrated-load sandwich tester.	Ericksen, W. S., Kuenzi, E. W., & Heebink, B. G.	FPL Rep. 1832-A. 1952. Out of print.

Title	Author	Publication and date
	TESTS AND ENVIRONMENT (continued)	
Moisture-excluding effectiveness of edge seals for aircraft sandwich panels.	Heebink, B. G.	FPL Rep. 1822. 1950. R&R 1962.
*Testing sandwich constructions at the FPL.	Kuenzi, E. W.	ASTM Bul. Feb. 1950.
*Creep tests of sandwich constructions subjected to shear at normal temperatures.	Voss, A. W., & Norris, C. B.	FPL Rep. 1806. 1949. Out of print. CFSTI (PB 104 448).
Effect of elevated temperatures on the strengths of small specimens of sandwich construction of the aircraft type.	Kuenzi, E. W.	FPL Rep. 1804. 1949. R&R 1962.
*Supplement: Glass-cloth facings, balsa core--Tested immediately after the test temperature was reached.	Kuenzi, E. W.	FPL Rep. 1804-A. 1952. Out of print.
*Supplement: Tests conducted after exposure at elevated temperatures for 192 hours.	Kuenzi, E. W.	FPL Rep. 1804-B. 1952. Out of print.
*Physical properties and fabrication details of experimental honeycomb-core sandwich house panels.	Housing & Home Finance Agency	H&HFA Tech. Paper No. 7. 1948. CFSTI (PB 96 678).

Title	Author	Publication and date
TESTS AND ENVIRONMENT (continued)		
*Durability of low-density core materials and sandwich panels of the aircraft type as determined by laboratory tests and exposure to the weather. Part I.	Heebink, B. G., Kommers, W. J., & Kunzweiler, J. J.	FPL Rep. 1573. 1947. Out of print.
*Part II.	Heebink, B. G., Kommers, W. J., & Mohaupt, A. A.	FPL Rep. 1573-A. 1949. Out of print.
*Part III.	Heebink, B. G., Kommers, W. J., & Mohaupt, A. A.	FPL Rep. 1573-B. 1950. Out of print.
*Part IV.	Setterholm, V. C., Heebink, B. G., & Kuenzi, E. W.	FPL Rep. 1573-C. 1955. Out of print.
*Investigation of methods of inspecting bonds between cores and faces of sandwich panels of aircraft type.	Heebink, B. G., & Mohaupt, A. A.	FPL Rep. 1569. 1947. Out of print.
*Methods for conducting mechanical tests of sandwich construction at normal temperatures.		FPL Rep. 1556. 1946. Out of print. CFSTI (PB 98 826).
*Methods of test for determining strength properties of core material for sandwich construction at normal temperatures.		FPL Rep. 1555. 1946. Rev. 1948. Out of print. CFSTI (PB 98 836).

Title	Author	Publication and date
	GENERAL	
Structural sandwich design criteria.	Kuenzi, E. W.	FPL Rep. 2161. 1959. Reprinted 1963.
*Sandwich construction for aircraft.	Department of Defense	ANC-23 Bull.
*Part II. Materials properties and design criteria.		1955. GPO.
*Composite construction for flight vehicles.	Department of Defense	MIL-HDBK-23. FSC 1500. GPO.
*Part I. Fabrication, inspection, durability, and repair.		1951.
*Part III. Design procedures.		1961. Rev. 1962.
*Strength and electrical transmission of three types of repairs to sandwich construction for radomes.	Heebink, B. G., & Miniutti, V. P.	WADC TR 57-609. 1958. CFSTI (PB 151 022).
*Sandwich constructions.	Heebink, B. G.	Modern Plastics Ency. Issue. Sept. 1956.
Structural sandwich constructions.	Forest Products Laboratory	Separate from Wood Handbook. USDA Agr. Handb. 72. 1955.
Thermal conductivity of paper honeycomb cores and sound absorption of sandwich panels.	Fahey, D. J., Dunlap, M. E., & Seidl, R. J.	FPL Rep. 1952. 1953.

Title	Author	Publication and date
	GENERAL (continued)	
*Developments and trends in lightweight composite construction.	Markwardt, L. J.	ASTM Spec. Tech. Pub. No. 118. 1952.
*Fabrication techniques for structural sandwich constructions.	Heebink, B. G.	ASTM Spec. Tech. Pub. No. 118. 1952.
*Paper honeycomb as a core for structural sandwich construction.	Kuenzi, E. W.	ASTM Spec. Tech. Pub. No. 118. 1952.
*Sandwich construction in the elastic range.	March, H. W.	ASTM Spec. Tech. Pub. No. 118. 1952.
*Strength of sandwich construction.	Norris, C. B.	ASTM Spec. Tech. Pub. No. 118. 1952.
*Development of a sandwich-type cargo floor for transport aircraft.	Yolton, L. A.	FPL Rep. 1550-C. 1947. Out of print.

PUBLICATION LISTS ISSUED BY THE

FOREST PRODUCTS LABORATORY

The following lists of publications deal with investigative projects of the Forest Products Laboratory or relate to special interest groups and are available upon request:

Architects, Builders, Engineers, and Retail Lumbermen

Box, Crate, and Packaging Data

Chemistry of Wood

Drying of Wood

Fire Protection

Fungus and Insect Defects in Forest Products

Furniture Manufacturers, Woodworkers, and Teachers of Woodshop Practice

Glue and Plywood

Growth, Structure, and Identification of Wood

Logging, Milling, and Utilization of Timber Products

Mechanical Properties of Timber

Modified Woods, Paper-Base Laminates, and Reinforced Plastic Laminates

Sandwich Construction

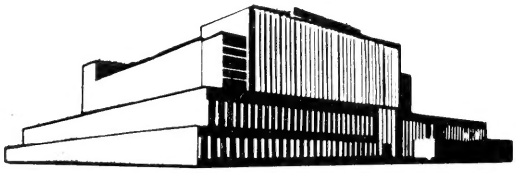
Thermal Properties of Wood

Wood Fiber Products

Wood Finishing Subjects

Wood Preservation

Note: Since Forest Products Laboratory publications are so varied in subject matter, no single catalog of titles is issued. Instead, a listing is made for each area of Laboratory research. Twice a year, January 1 and July 1, a list is compiled showing new reports for the previous 6 months. This is the only item sent regularly to the Laboratory's mailing roster, and it serves to keep current the various subject matter listings. Names may be added to the mailing roster upon request.



FOREST PRODUCTS LABORATORY